As enclosed to IPER

We claim:

1. An aqueous antifreeze composition comprising 10 to 50% by weight of one or more salts from the group of saturated and unsaturated, aliphatic and aromatic dicarboxylic acids in the form of the alkali metal, ammonium or alkaline earth metal salt, further comprising one or more customary corrosion-inhibiting substances used in aqueous coolants, and 0.01 to 5% by weight of one more compounds from the group of aliphatic and aromatic monocarboxylic acids having 3 to 16 carbon atoms in the form of their alkali metal, ammonium and substituted ammonium salts.

2. An antifreeze composition as claimed in claim 1, wherein salts of unbranched or branched, saturated or unsaturated, aliphatic dicarboxylic acids having 2 to 15 carbon atoms or mixtures thereof are used.

3. An antifreeze composition as claimed in claim 2, wherein the dicarboxylic acid is a linear saturated aliphatic dicarboxylic acid having 4 to 12 carbon atoms.

4. An antifreeze composition as claimed in any of claims 1 to 3, wherein the salt is a sodium or potassium salt, an ammonium, trialkylamine or trialkanolamine salt.

5. An antifreeze composition as claimed in any of claims 1 to 4, wherein one or more compounds from the groups listed below are additionally used:

a) 0.01 to 5% by weight of one or more compounds from the group of aliphatic and aromatic di- and tricarboxylic acids each having 3 to 21 carbon atoms in the form of their alkali metal, ammonium and substituted ammonium salts, where, in cases where a dicarboxylic acid is used, this is different from the dicarboxylic acid used as antifreeze composition.

b) 0 to 1% by weight of one or more compounds from the group of alkali

metal borates, alkali metal phosphates, alkali metal silicates, alkali metal nitrites, alkali metal and alkaline earth metal nitrates, molybdates and alkali metal and alkaline earth metal fluorides;

c) 0 to 1% by weight of one or more compounds from the group of hard-water stabilizers based on polyacrylic acid, polymaleic acid, acrylic acid-maleic acid copolymers, polyvinylpyrrolidone, polyvinylimidazole, vinylpyrrolidone-vinylimidazole copolymers and copolymers of unsaturated carboxylic acids and olefins;

d) 0.01 to 5% by weight of one or more compounds from the group of carboxamides and sulfonamides;

e) 0.01 to 5% by weight of one or more compounds from the group of mono- and binuclear unsaturated and partially unsaturated heterocycles having 4 to 10 carbon atoms, which may be benzo-fused or carry additional functional groups,

f) 0.01 to 5% by weight of one or more compounds from the group of tetra(C_1-C_8-alkoxy)silanes (orthosilicic acid tetra-C_1-C_8-alkyl esters);

g) 0.01 to 5% by weight of one or more compounds from the group of aliphatic, cycloaliphatic and aromatic amines having 2 to 15 carbon atoms which may additionally contain ether oxygen atoms or hydroxyl groups.

6. An antifreeze composition as claimed in any of claims 1 to 5, wherein the combination of one or more substances from the groups a), b), c), and/or e) is present.

7. An antifreeze composition as claimed in any of claims 1 to 6, wherein, in particular, salts of 2-ethylhexanoic acid, p-hydroxybenzoic acid, benzoic acid, isononanoic acid, sebacic acid and dodecanedicarboxylic acid and tolutriazole, benzotriazole, 1H-1,2,4-triazole, sodium molybdate and sodium metasilicate are used.

8. An antifreeze composition as claimed in any of claims 1 to 7, wherein their

pH is in the range from 6 to 11.

9. An antifreeze composition as claimed in any of claims 1 to 8, which comprises less than 10% by weight of ethylene glycol, propylene glycol, polyethylene glycols and/or polypropylene glycols having 2 to 15 glycol ether units.

10. The use of a salt of a dicarboxylic acid from the group of saturated and unsaturated, aliphatic and aromatic dicarboxylic acids in the form of the alkali metal, ammonium or alkaline earth metal salt, in combination with one or more customary corrosion-inhibiting substances used in aqueous coolants, and 0.01 to 5% by weight of one more compounds from the group of aliphatic and aromatic monocarboxylic acids having 3 to 16 carbon atoms in the form of their alkali metal, ammonium and substituted ammonium salts as antifreeze composition.

11. The use according to claim 10, in antifreeze compositions, cooling liquids, heat-transfer liquids or cooling brines.

12. The use as claimed in claim 10 or 11, wherein salts of branched or unbranched, saturated or unsaturated, aliphatic dicarboxylic acids having 2 to 15 carbon atoms or mixtures thereof are used.

13. The use as claimed in claim 12, wherein the dicarboxylic acid is a linear saturated aliphatic dicarboxylic acid having 4 to 12 carbon atoms.

14. The use as claimed in any of claims 10 to 13, wherein one or more compounds from the groups listed below are additionally used:

a) 0.01 to 5% by weight of one or more compounds from the group of aliphatic and aromatic di- and tricarboxylic acids each having 3 to 21 carbon atoms in the form of their alkali metal, ammonium and substituted ammonium salts, where, in cases where a dicarboxylic acid is used, this is different from the dicarboxylic acid used as antifreeze composition;

b) 0 to 1% by weight of one or more compounds from the group of alkali

nitrites, alkali metal and alkaline earth metal nitrates, molybdates and alkali metal and alkaline earth metal fluorides;

c) 0 to 1% by weight of one or more compounds from the group of hard-water stabilizers based on polyacrylic acid, polymaleic acid, acrylic acid-maleic acid copolymers, polyvinylpyrrolidone, polyvinylimidazole, vinylpyrrolidone-vinylimidazole copolymers and copolymers of unsaturated carboxylic acids and olefins;

d) 0.01 to 5% by weight of one or more compounds from the group of carboxamides and sulfonamides;

e) 0.01 to 5% by weight of one or more compounds from the group of mono- and binuclear unsaturated and partially unsaturated heterocycles having 4 to 10 carbon atoms, which may be benzo-fused or carry additional functional groups,

f) 0.01 to 5% by weight of one or more compounds from the group of tetra(C_1-C_8-alkoxy)silanes (orthosilicic acid tetra-C_1-C_8-alkyl esters);

g) 0.01 to 5% by weight of one or more compounds from the group of aliphatic, cycloaliphatic and aromatic amines having 2 to 15 carbon atoms which may additionally contain ether oxygen atoms or hydroxyl groups.